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1234

"Y" Line to Connect with Electric Railway on Riverside Road

Defl. Ac.

113 + 75.9 C.C. 9° L. 0°58.5

113 + 42.9 C.C. 6°30' L. 13°57.5

14°55.1

+30 14.28.5

13°48.1

12°40.6

11°33.1

10°25.6

9°18.1

8°10.6

7°03.1

+40.1 Pbty Line 6°50.1

5°35.6

+95.6 Pbty Line 5°50

4°48.1

3°40.6

2°33.1

1°25.6

+58.4 Pbty Line 0°29.6

0°18.1

106 + 36.6 B.C. 4°30' L.

106 + 06.6 B.C. 4.71 Rt

T.C. 1°57

S.T. 1.55

T.C. 3°55' L.C. Prop. 3

S.T. 364.12

Abandoned

Nov. 29/06.

Nov. 28/06

2

YARD

HOP

BUTLER

PBTY LINE

SCHULER

BUTLER

PBTY LINE

Pbty Line

Old Transit Book #9 page 43-44

Y' LINE

Sta.		Deflec.	
122 + 41.5		1°22' L	Angle pt. Intersec Cent Elec Rt
121 + 97.3	Δ	Pt 4.71 L of Cent Elec. Rt	
121 + 58.1	EC	43°15	
+50		42°47.1	
121		39°54.6	
+90	Δ	39°20.1	
+40		37°02.1	
+45	Δ offset	36°44.5	
120		34°00.6	
+95	Δ offset	33°52.3	
+50 + 81.4	Pty Line	33°02.1	31°17.1
119		28°24.6	
+50		25°32.1	
118		22°39.6	
+59.4	Pty Line Intersec	21°30.6	20°19.5
		19°47.1	
117		16°54.6	
+50		14°02.1	
116		11°09.6	
+50		8°17.1	
115		5°24.6	
+50		2°32.1	
114 + 05.9	CC	11°30' L	1°21'

T.C. 2°42
S.T. 15.01

T.C. 26°30' L.C. 732.2
S.T. 468.88

Abandoned

For Topography
See next page

West 230'

RIVERSIDE ROAD

3

122 + 41.5 Δ is 1518.4 from P.I. at 84 + 99.4

Co. Stake

119 + 81.5

offset 50 feet

BUTTER

Pty Line 47.9

PLACE

BARN

28°23.6

117 + 59.4

Pty Line 122.2

148.2

Y. 118 + 86

Cent. Y. Line

Y. 118 + 60

22.5

50'

"Y" LINE

Dec 19th/06

4

122+41.5 Cent Elec. R^y

121+97.3 Δ 4.71 L of Cent Elec. R^y

121+50

121+09

121.

120+75
+60

120+24.6

119+98.6

Abandoned

EICHULER

BUTLER

PROP LINE

1-Story Frame Dwelling 26.6

SALOON 1-Story Frame

Cent Elec R^y

See also Book #10 pp. 2-3.

1237

X Sections Knox's Spur

K LINE

Pt.		fro	Grade														
0+00.	= 32+67.8		33.70														
0+37.8	= 32+30.																
0+73.8	= 31+94																
1+00	= 31+67.8		33.70														
1+18		33.7	no grading for D.T.														
1+50		29.1															
2.		23.1															
+25		20.9	33.20														
+50		26.0	32.45														
+66			31.97														
+70																	
3		31.9	30.95														

-3.00.

X Sections are on left of E line + Right of K line

LEVEL

LEVEL

no grading for D.T.

Pages 8 To 11. Used In Final Estimate Item No 17 and 18.

May 22/07.

14 foot R.B on Spur.

8

	L.	C.	R.
	-13.8 / 42.7	-13.8 / 24.	-1.0 / 15.
	-0.3 / 9.	0.0	22.0
Spur -13.6 / 47.9	D.T. -13.5 / 42.2	-13.8 / 24.	-0.6 / 14.
	0.0 / 9.	0.0	RB Spur 24.3 on L
Spur -13.4 / 46.8	D.T. -13.3 / 42.	-13.1 / 34.5	-0.7 / 14.5
	0.0 / 9.	0.0	RB Spur 26.7 on left
Spur -13.6 / 48.4	D.T. -13.0 / 40.0	-0.6 / 15.6	-0.3 / 9
	0.0	0.0	RB Spur 28.0
	0.0 / 7.0	0.0	-13.3 / 22.
	-13.4 / 27.1		
	0.0 / 9.0	-0.8 / 7.	-4.1
	-13.1 / 17.	-13.7 / 27.6	
	0.0 / 20.	-6.4 / 7.	-10.1
	-11.7 / 4.	-12.0 / 7.	-13.2 / 11.
	-13.7 / 27.6		
	0.0 / 16.5	-9.6 / 7.	-12.3
	-13.2 / 7.	-13.9 / 27.9	
	0.0 / 15.5	-3.6 / 7.0	-6.4
	-9.4 / 7.	-12.4 / 15.5	-13.3 / 27.0
	+1.5 / 8.5	+0.8	0.0 / 2.5
	-3.4 / 12.1		
	+1.4 / 8.4	+1.0	0.0 / 7.0
	+1.2 / 8.2	+0.9	+0.4 / 7.4

FMJ 5-18-12

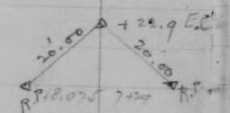
1238

X. Sec: Knox's Spur

K. LINE

Sta.	Fro	Grade	L.	C.	R.
3+50	29.5	29.45	+0.3 7.3	0.0	0.0 7.0
3+58			0.0 7.0	0.0	-0.3 7.4
3+75		28.70	-8.0 19.0	-4.6 7.	-2.5	-1.0 7.	-0.7 8.4
4	18.3	27.95	-9.4 21.1	-9.6 7.	-9.7	-9.7 3.	-8.5 7.	-5.2 14.8
+50	18.7	26.45	-8.3 19.4	-7.9 7.	-7.8	-7.8 7.	-8.3 19.4
5	17.7	24.95	-7.3 18.0	-7.4 7.	-7.2	-7.2 7.	-7.2 17.8
+50	17.3	23.45	-6.2 16.3	-6.2 7.	-6.1	-6.2 7.	-5.9 15.9
6	16.6	21.95	-5.3 15.0	-5.3 7.	-5.3	-5.4 7.	-5.1 14.6
+50	16.0	20.45	-4.5 13.8	-4.5 7.	-4.5	-4.5 7.	-4.3 13.4
7 +29	16.0	18.95	-2.8 11.2	-2.8 7.	-2.9	-3.0 7.	-3.0 11.5
+79		16.575	-0.8 8.2	-0.9 7.	-0.9	-0.8 7.	-0.7 8.0
8	15.4		-1.1 8.6	-1.1 7.	-1.2	-1.1 7.	-1.1 8.2
+62.2 Hub					
9	15.7		AMH 5-18-12	-0.9 8.4	-0.8 7.	-0.9	-1.0 7.	-0.9 8.4
10.	16.3	16.575	-0.3 7.4	-0.3 7.	-0.3	-0.5 7.	-0.5 7.8

+0.2 level



18.075	7+24	
17.419	7+54	
16.950	7+79	
16.669	8+04	
16.575	8+29	

See next page

9

5.00

32

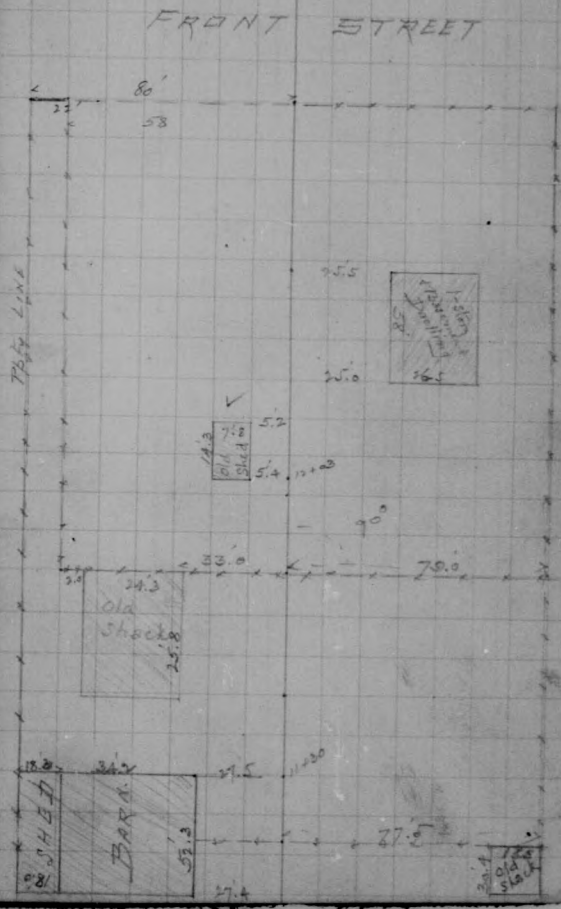
S.M. 11.023 Angle 7°30'

1239

Knox's Store (Cont.)

Sta.		Fro.	Grade
13+15.5	West Line Front Street	17.2	17.837
13		17.2	17.775
12+03		16.8	17.375
11+76	Fence		
11+30			
11		16.8	16.975
10+95	Fence		

for X Sec: See next page



1240

Knox's Spur

X Sections (Cont.)

Sta.		L.	C.	R.
+15	End of line	-0.4 / 7.6	-0.5 / 7 -0.5	-0.7 / 7 -0.8 / 8.2
13		-0.4 / 7.6	-0.4 / 7 -0.5	-0.7 / 7 -0.7 / 8.0
12		-0.5 / 7.8	-0.5 / 7 -0.4	-0.4 / 7 -0.4 / 7.6
11.		0.0 / 7.0	-0.1	-0.2 / 7.3

FMY 5-18-12

1241

Soundings in Sacramento River

July 8/07.

17

St.	+S	H.I.	Rod.		Elev.
	2.80	36.50			33.70
T.P	4.16	28.52		12.14	24.36
S.W in River				11.95	16.57!
15					
17					
20					
23					
26+03.1					
30					
34					

S.W. 16.57.

Sdg. of Esta. S.W.
33.2 16.6 12.6 7.6 5.6 -3.4 -12.5 -13.0
8.5. 51 60 72. 80 90. 115 130

S.W.
33.2 16.6 8.6 6.6 -1.4 -8.4 -11.5 -10.5 -9.5
12. 57. 70. 80 90. 100. 110. 120. 130.

S.W.
33.2 16.5 11.5 4.5 5.5 -1.5 -5.5 -11.5 -9.5
9. 61.0 70. 80 90. 100. 110. 120. 130.

Sdg. of Esta. S.W.
33.2 16.4 12.4 6.4 1.4 -4.6 -10.5 -10.5 -10.5
8.0 67. 70. 80 90 100. 110 120 130

S.W.
33.2. 16.3 11.3 5.3 2.3 -5.7 -9.5 -10.5 -11.
8. 69. 80. 90 100. 110. 120 130. 140.

S.W.
33.2 16.2 7.2 0.0 -5.8 -6.8 -6.8 -6.8
41. 88. 100. 110 120 130 140 150.

S.W.
33.2 16.2 3.2 3.2 -0.8 -2.8 -5.8 -5.8
83. 172. 180. 190. 200 210. 220 230
-5.8
240

X Sections

Knox Spur Connection
with Sacto So. R.R. E' Line Parallel

Grade 33.20 22' Roadway 1½:1 Slope
Track 13' centers

	Ground	Grade
32+67.8 = 0+00	19.9	33.20
33	19.6	33.20
+50	19.6	33.20
34	19.9	33.20
+50	19.6	33.20
+76.5 H.B.	19.6	33.20

See Cross Section Book 0 to 208 pages 9 & 10

L	C	R	Dist.	End Area	Cubic Yds.
-13.8 -13.5 -13.5 -13.2 0.0 42.7 29.2 22 9				178.88	
			32.2		212.87
-13.6 -13.5 -13.6 -13.6 0.0 42.4 29.2 22 9				177.14	
			50		327.10
-13.6 -13.4 [illegible] -13.6 0.0 42.4 29.1 [illegible] 9				176.80	
			50		337.50
-13.3 -15.8 -15.7 -15.7 0.0 42.0 32.4 22 9				188.90	
			50		337.50
-13.2 -13.2 -13.3 -13.2 0.0 42.4 28.8 22 9				175.19	
			26.5		173.36
-13.2 -13.2 -13.3 -13.2 0.0 42.4 28.8 22 9				175.19	
					1388.33

1243

Road for Knox.

Feb 14/08

Road 60' Wide

Sta.	Grade	H.I.	Rod	Elev.		L.	C.	R.
BM.	3.05	20.07			17.023			
0 = M. LINE Front St.			3.8	16.3		0.0 30.	0.0	0.0 30.
+50	16.50.		3.6	16.5		-0.7 31.0	-0.4	0.0 30.
1			4.4	15.7		-1.4 32.1	-1.3	-1.3 32.0
+50			4.8	15.3		-1.7 32.6	-1.8	-1.3 32.0
2	16.55		4.5	15.6		-1.4 32.1	-1.4	-0.9 31.4
+50			4.2	15.9		-0.8 31.2	-1.3	-0.7 31.0
3	16.66		5.0	15.1		-1.5 32.2	-2.0	-1.1 31.6
+50			5.0	15.1		-1.2 31.8	-2.1	-1.4 32.1
4	16.77		5.1	15.0		-1.4 32.1	-2.3	-1.7 32.6
+50			4.7	15.4		-1.4 32.1	-2.0	-1.1 31.6
5	16.88		4.5	15.6		-1.4 32.1	-1.8	-1.0 31.5
+50			4.4	15.7		-1.4 32.1	-1.8	-1.2 31.8
6	16.99		4.3	15.8		-1.0 31.5	-1.7	-1.2 31.8
+50			3.8	16.3		-0.4 30.6	-1.3	-0.8 31.2
7	17.10		3.0	17.1		0.0 30.	-0.5	0.0 30.
+50			2.9	17.2			0.0	
+75	Foot of Grade		1.6	18.5			0.0	

see for Title 3" x 5" 1 to 40 plan

FMY 5-20-12

1244

X Sections on Levee North of Freeport.

+25 10°00'R

3

+50

2

1+50

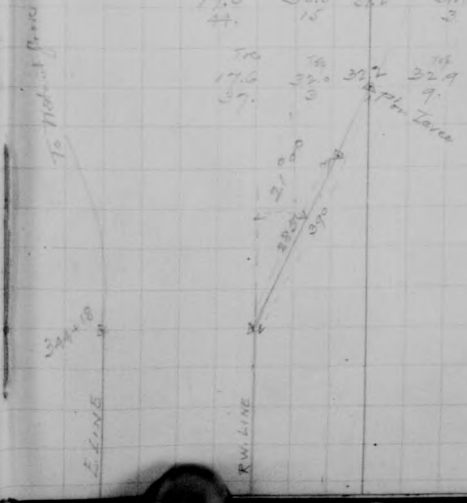
1+00

0+50

0+00 ℄ on Levee 53°00'L

℄ on R.R. LINE
Opp. 344+16. BC 1°L

Toe	Top		Top				Sur.
15.7	24.4	24.9	24.7	20.5	15.7	8.4	6.9
20.	6		4	9.	33.	49.	64.0
Toe	Top		Top				Sur.
16.1	24.3		24.7	21.1	15.7	8.0	6.9
25.	11.			6.	35.	52.	64
Toe.	Top.		Top				Sur.
16.8	25.0	25.2		21.4	16.8		6.9
25	9			8.	26.		66.
Toe.	Top		Top				Sur.
16.0	24.9	24.8		25.0	20.8	17.0	13.7 6.9
35.	12.			6	16.	36.	40. 67.0
Toe	Top	Top					Sur
16.7	27.5	27.5	0.8°	28.5	21.0	18.0	15.5 6.9
36.	12		19	7.	21.	36.	39. 68.0
Toe	Top		Top				Sur.
17.0	30.5	31.2	31.7	21.0	16.8		6.9
44.	15		3	23.	42.		68.
Toe	Top		Top				Sur.
17.6	32.0	31.2	32.9	19.1			6.9
37.	3		9.	39.			72.



1245

X Secs. on Levee North of Freeport.

+50 End of Line

8

+50

7 △ 8°00'R.

+50

6

+50

5

+50

4

3+50

Augt 3/07

16

Top	Top	Top					S.M.
16.2	19.7	25.9	25.9	25.5	18.0	8.9	6.8
29	13.	3		3	21.	69	73.

Top	Top						S.M.
15.7	26.7	25.5		17.7	9.7		6.8
26.	4.			14.	51.		66.

	Top	Top					S.M.
15.5	26.6	26.6		17.7	14.6	10.0	6.8
25.	4.			16.	33.	41.	86.

F 354+35.7 R
BC 7½ R.

41°33'

							S.M.
Top	16.0	25.8	Top	16.0	19.3	15.4	8.0	6.8
	20			5.	20.	36.	98.	54.

								S.M.
Top	Top	Top	Top					
15.4	24.0	24.6		19.9	18.5	12.0	8.0	6.8
20	2.			14.	24.	25.	44.	52.

								S.M.
Top	Top	Top						
15.4	24.3	24.4		19.7	19.0	12.4	11.1	6.8
21	4			15.	20.	20.	37	50.

							S.M.
Top	Top	Top					
15.7	24.4	24.8		20.0	18.9	7.8	6.8
21.0	5			15.	19.	40.	45.

								S.M.
Top	Top		Top					
15.9	24.2	24.5		24.3	20.8	18.7	12.5	11.5 6.8
30.	5			2.	12	24.	28.	36. 45

								S.M.
Top	Top		Top					
15.2	23.7	24.7	24.5	21.0	18.5	9.5	6.8
21.	6.		2	10	22.	25	46.

								S.M.
Top	Top		Top					
15.6	24.3	24.2		21.0	18.7	7.8		6.9
17.	5.			9.	23.	38.		43.

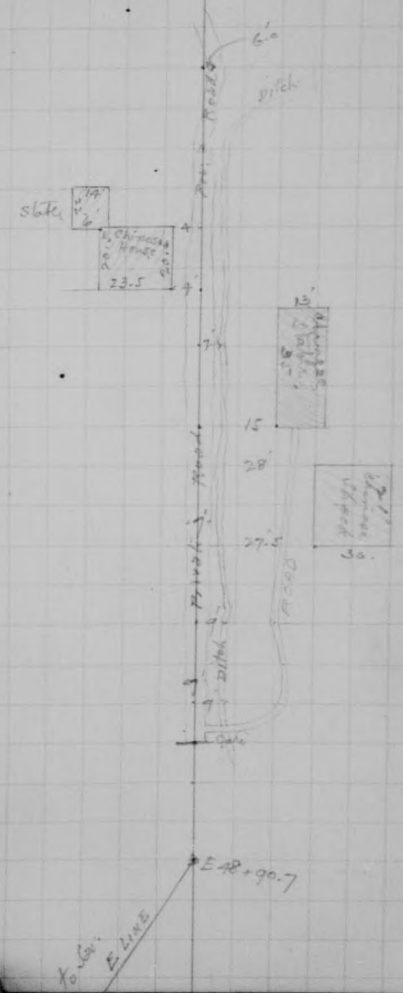
								S.M.
Top	Top			Top				
15.5	24.0	24.1		24.0	20.1	18.8	7.6	6.9
19.0	4			2	13.	24.	48.	52.

1246

Meander Line on Miller Property to Locate Road & Houses

Sept 27/07.

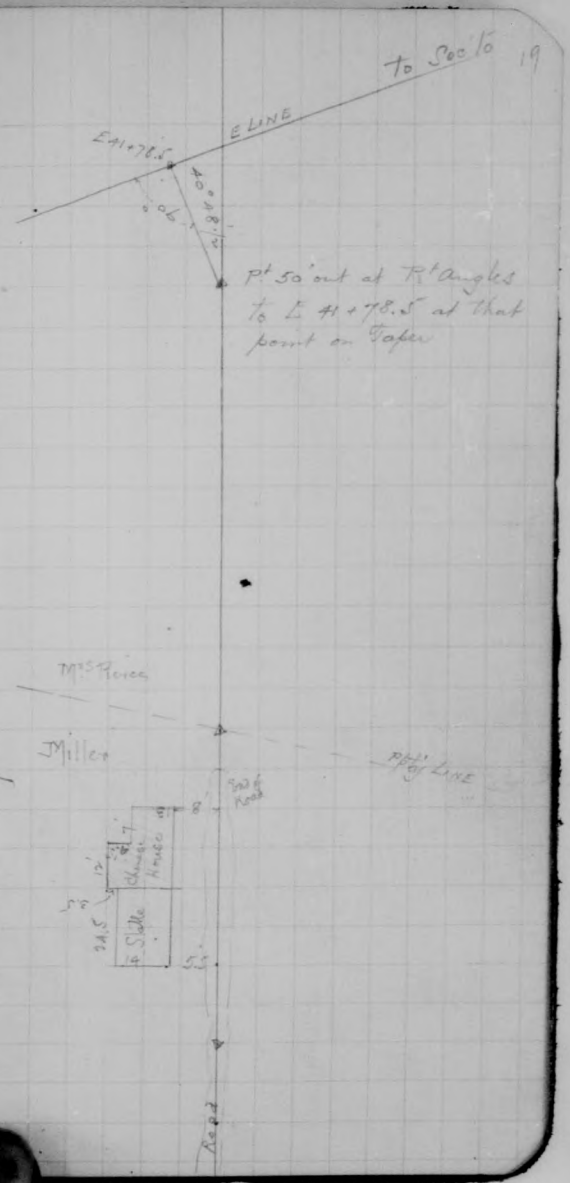
Sta.	Angle
6 + 60	
6 + 40	93°50' L
6	
5 + 80	
5	
4 + 13	
+ 85	
3	
2	
1 + 21	
1 + 00	71°20' L
0 = E 48 + 90.7	9°00' L



1247

Meander Line on Miller Property (cont'd)

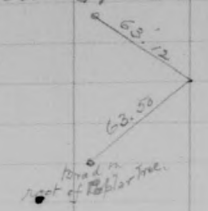
Sta.	Angle.
18+43.9 = Δ 50' out from E 41+78.5	
10+07.5 Δ approx: applying line	76°01' L
8+93	
7+75	22°20' R.
7.	



1248

House Track at Freeport

Sept 3/09.



4 + 22.67 B.C. 4° R'

4

4 + 50

3 + 16.28 E.C 3° 39'

3 3° 19.5

3 + 50 2° 19.5

2 1° 19.5

1 + 50 0° 19.5

1 + 33.78 B.C 4° L

1 + 13 opp Sta. 368 + 85 Top of Grade

H.T. 0 + 73.78 Frog Pt. 6° 22' L
Δ 17.71 L of 368 + 45

1249

House Track at Freeport.

St/2:

9 2°58.9

+50 1°13.9

8+14.8 B.C. 7°00R

8

+50

+38 Fence

7

6+92.25 EC 5°23.5

6+62.67 △ on Semi Tan: 54.66

+50 4°32.8

+33 Fence

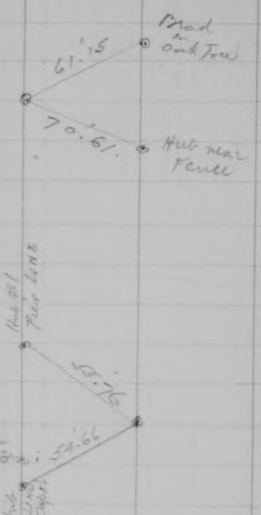
6 3°32.8

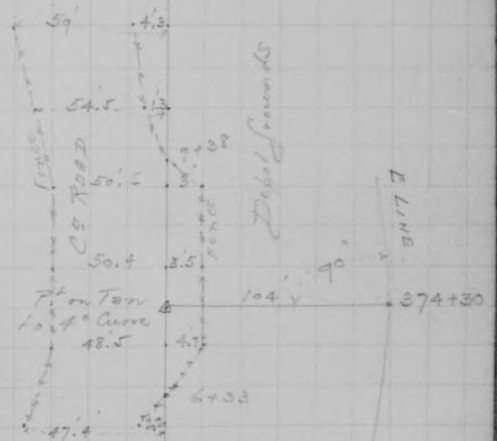
+50 2°32.8

5 1°32.8

4+50 0°32.8

T.O. 10.47
S.T. 135.20
L.C. 269.58





1250

House Track at Freeport

Sept 4/09 24.

Sta:

13+07.43 Δ 17.71 L of E 380+70
6°22' L. #9 Frog

13

10 +50

12+38.39 E.C. 5°44'
T.C. 0+28
11°16.8'
S.T. 82.19

11°38'

12 4°33.4

+50 2°38.4

11 0°53.4

10+74.58 B.C. 7° L.

Hd Fence
78.34

10+24.32 E.C. 7°20'

Hd 53.73
Fence

8 10 6°38.9'

9+50 4°43.9'
C 14°40
0 209.52
T. 103.37
V.S.

12+72 App: 380+35 Top of grade

1251

Levels on House Track at Freeport

Sept 7/09.

Sta.	+S	H.I.	Rod	Elev.
BM.	10.450	28.581		18.131
0+00			1.0	27.6
0+73.78	△17.71 L of 368+45		1.0	27.6
1			0.9	27.7
+50			2.0	26.6
2			3.6	25.0
+50			5.9	22.7
3			7.4	21.2
+75			8.2	20.4
+50			11.5	17.1
+70			13.8	14.8
4			14.0	14.6
+50			12.9	14.7
5			13.4	15.2
T.P.	4.140	22.361	10.360	18.221
+50			6.9	15.5
6			7.0	15.4
+44			8.2	14.2
+46			9.4	13.0
+50			9.4	13.0
7			8.9	13.5
+11			7.2	15.2

in Ditch 3' wide edge of Co. R.

1252

Sta.	+ S	H.I.	Rod	Elev.
7+50		22.361	7.4	15.0
8			7.6	14.8
+50			7.7	14.7
9			7.7	14.7
+50			8.0	14.4
10			8.0	14.4
+15			7.2	15.2
+50			4.0	18.4
T.P.	10.554	29.575	3.340	19.021
11			6.7	23.9
+50			2.3	27.3
12			1.9	27.7
+50			1.9	27.7
13			1.5	28.1
13+07.43	Δ 17.71	L of 380+70	1.5	28.1
13+81.71	Δ 13'	L of 381+43.78	1.5	28.1

1253

B.M. 15.013.

X Sections on Co. Road at Truport opposite Depot.

Sta:	Grade			L.	C.	R.		
0	14.6	-2.5		0.0 / 13.0	0.0	-0.9 / 10.	-0.6 / 16.	0.0 / 17.5
+80	16.55		Top of approach	-1.8 / 17.5	-2.0	-2.9 / 10.	-0.7 / 23.	
1+40	16.67			-1.3 / 19.	-1.9	-2.7 / 12.	-0.7 / 25.	
2+00	16.80			-2.7 / 19.	-2.1	-2.8 / 11.	-1.0 / 29.5	
2+60	16.67			-2.0 / 20.	-2.2	-3.0 / 12.	-0.8 / 33.	
3+20	16.55			-1.1 / 19.	-2.0	-2.8 / 13.	-2.3 / 18.	
4+00				0.0 / 16.	0.0	-1.0 / 13.		

Area for metaling 18.000 Sq ft
280 Yds. Crushed gravel
230 " Screenings

August Progress.

Sta.	Grade Elev.	
150+02 Toe.		
150+16 EB to 159+80.6	Grade	Grade Xing at Sta. 150+95
114+87		" " at 158+50
114+87 to 123	Grade	
124	+2.0	
125	+1.0	
126 to 132	Grade	Grade Xing at 130+54.5
132 to 328+08	Grade	
335+57 to	Same as before	
341+65	orig. gr.	
342+10	-1.2	

1255

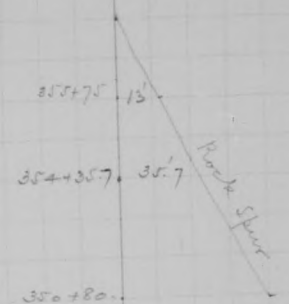
August Progress

Sta.	Grade Elev.
343	-0.7
344	-1.2
345	-0.5
346	-0.5
347	-0.6
348	-1.0
349	-1.6
350	-4.0
351	-6.8
352	-5.5
353	-5.0
354	-6.0
+40	orig grd.
360+30	orig grd
+50	-5.0
361	grade
362	grade
363 to 367	grade
367 to 459+76	Same as before

1256

Freeport Rock Spur

	East Rail		West Rail	
357+42.4 H.B.				
	15. PL			
	26.0	70# Steel	23.0	70# Steel
	33.0		33.0	
356+62.5 P.F.	15 #10 Frog		33.0	
	8.2 Taper		8.2 Taper	
	20.8 62# Steel		6.2 62# Steel	
	29.	70# Steel		
	30		21.0	7-30's
	29.6		14.0	
	3-30's 90.0		16.4	
	24.		23.7	
	16.6		60.0	2-30's
	16.7		9.5	70# Steel
	25.3		20.6	
	3-30 150.0		24.9	
	27.6		28.9	
	4-30's 120.0		29.2	
			120.0	4-30
			12.6	



1257

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$\frac{13^{2}}{288}$ $\frac{177}{9}$ $\frac{9}{-64}$ $\frac{218}{-8\frac{1}{2}}$

-137 $-8\frac{1}{2}$ $-\frac{1}{288}$ $\frac{33}{288}$

504 210 $\frac{2688}{57}$

Sta.	Elev.	Grade	Lt.	Cr.	Rt.
+50	12.4	26.363	-5.5 -6.4 3.1 10.2 12.4 13.3 16.7 37.3 45.0 37.0 9 -14.0 9 23.6 -32.5 -32.8 -22.7 -16.2 -10.1 -9.7		
503	-1.3	26.360	58.8 30 9 -27.7 5 9 11 16 32.9 -33.2 -33.7 -33.9 -22.7 -22.5 -19.4 -17.9 -15.9		
+50	-7.7	26.375	58.1 20 9 -34.1 9 35 49.1 -32.7 -34.7 -34.9 -35.5 -35.9 -26.7		
502	-6.2	26.381	52.1 26 9 -32.6 9 20 30 59.6 -28.7 -30.1 -28.9 -30.7 -32.9 -33.1 -33.7		
+50	-2.8	26.387	39 37 01 -0.5 -2.8 -5.3 -4.8 -6.9 42.8 30.0 25.0 9 -29.2 9 30 59.6 -22.5 22.7 -25.7 -26.9 -31.7 -31.2 33.3		
+30			43.1 9 -22.7 9 25 59 -22.7 -23.1 -27.4 -32.8 -33.3		
+05			48.7 9 -25.2 20 56.6 -28.1 -22.7 -28.9 -31.7		
501	3.5	26.393	3.3 3.9 3.8 3.7 -0.5 -2.5 -2.5 5.3 43.7 9 -22.6 9 14 20 46 56.4 -23.1 -22.5 -22.7 -26.8 -28.2 -31.9 -31.2		
+50	3.4	26.399	43.7 9 -23.0 9 40.0 51.0 -23.1 -23.0 -23.0 -23.0 -28.0 -28.0		
500	3.8	26.405	3.7 3.5 3.8 3.8 3.5 43.1 9 -22.6 9 43.4 -22.7 -22.4 -22.6 -22.9		
499+50	3.8	26.411	43.1 9 -22.6 9 44.0 -22.7 22.6 -22.7 -23.3 22.5 22.5 -22.7 -23.2		

Sections, Sta. 360 to 504", on pages 55-67.
E.B.L.

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1259

Sta.	Elev.	Grade	Lt.		C.L.	Rt.	
499	3.8	26.427	44.3 / -23.5	2.9 / 9 / -23.7	2.8 / -23.6	3.1 / 9 / -23.3	3.1 / 44.0 / -23.3
			T.P. 18,960 20' Rt. 499 on P/Lg.				
+50	3.0	26.433	44.0 / -23.3	9 / -23.5	-23.4	9 / -23.4	44.1 / -23.4
+25			43.7 / -23.1	9 / -22.5	-23.1	9 / -23.1	44.0 / -23.3
498	3.8	26.439	43.4 / -22.9	3.5 / 9 / -22.6	3.8 / -22.6	3.4 / 9 / -23.0	3.4 / 43.5 / -23.0
+50	3.8	26.445	43.4 / -22.9	9 / -22.6	-22.6	9 / 22.7	43.7 / -23.1

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497	3.1	26.441	44.0 / -23.3	3.1 / 9 / -23.3	3.1 / -23.3	3.1 / 9 / -23.3	2.9 / 44.3 / -23.5
+50	3.0	26.447	43.7 / -23.1	9 / -23.2	-23.4	9 / -23.3	44.4 / 23.5
496	2.8	26.453	43.5 / 23.0	3.5 / 9 / 23.5	3.0 / -23.7	3.0 / 9 / 23.5	3.0 / 44.8 / 23.5
+60			42.6 / -22.4	9 / -23.5	-23.7	9 / -23.7	44.4 / -23.6
+50	3.5	26.459	42.6 / -22.4	9 / -22.8	-23.0	9 / -23.6	45.0 / -23.0
495	3.8	26.464	42.9 / -22.5	3.9 / 9 / -22.6	3.8 / -22.7	3.8 / 9 / -22.7	3.3 / 43.8 / -23.2

Cross Sections, Sta. 360 to 504.

Sta.	Elev.	Grade	Lt.		Cr.		Rt.
+50	38 8	26 470	44 6	9	-22 7	9	43 5
			-23 3	-23 3		-22 5	-23 0
494	38 8	26 476	41 / 42 6	42 / 9	38 / -23 7	39 / 9	39 / 43 5
			-22 4	-22 5		-22 6	-23 0
+50	38 8	26 482	42 5	9	-22 7	9	43 2
			-22 3	-22 6		-22 6	-22 8
493	35 5	26 488	38 / 43 1	35 / 9	35 / -23 0	35 / 9	34 / 43 7
			-22 7	-23 0		-23 0	-23 1
+50	34 4	26 494	43 2	9	-23 1	9	44 1
			-22 8	-22 8		-23 0	-23 4
+40			43 8	9	-23 5	9	44 1
			-23 2	-23 4		-23 5	-23 4
492	30	26 500	31 / 44 7	29 / 9	29 / -23 6	29 / 9	29 / 44 4
			-23 4	-23 6		-23 6	-23 6
+50	29	26 506	43 8	9	-23 6	9	44 6
			-23 2	-23 6		-23 6	-23 7
491	30	26 512	32 / 43 2	29 / 9	30 / -23 5	29 / 9	29 / 44 4
			-22 8	-23 6		-24 4	-23 6
+50	28	26 518	43 8	9	-23 7	9	44 4
			-23 2	-23 6		-23 7	-23 6
490	25	26 524	28 / 44 6	9	-23 7	9	28 / 44 6
			-23 7	-23 7		-23 7	-23 7

T.P. 16.467 m Pos 25' Rt. of 490.

Cross Sections, Sta. 360 to 504.

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1261

Sta.	Elev.	Grade		Left.		Ct.	Rt.	
+50	2 7	26 533		44 6	9	-23 5	9	45 0
				-23 7	-23 8		-23 8	-24 0
488+24 1	2 3	26 533	E.C.	2 3 45 5	2 3 9	2 3 -24 2	2 5 9	2 5 45 0
				-24 3	-24 2		-24 0	-24 8
94 1	2 4	26 537	C.C. 1+00'	45 3	9	-24 1	9	45 2
				-24 2	-24 2		-24 1	-24 1
+64 1	2 5	26 541	C.C. 1+50'	2 3 45 3	2 3 9	2 5 -24 0	2 3 9	2 1 45 6
				-24 2	-24 2		-24 3	-24 2
+34 1	2 0	26 545	C.C. 2+00'	45 2	9	-24 5	9	45 5
				-24 1	-24 2		-24 4	-24 3
488+04 1	2 1	26 548	C.C. 2+30'	2 3 45 3	2 3 9	2 1 -24 4	2 0 9	2 0 45 8
				-24 2	-24 2		-24 5	-24 5
+74 10	2 3	26 552	C.C. T.1	45 6	9	-24 3	9	45 6
				-24 1	-24 3		-24 7	-24 2
+50	2 1	26 554		2 2 45 3	2 4 9	2 1 -24 5	2 0 9	2 1 45 3
				-24 2	-24 2		-24 1	-24 5
487	2 2	26 560	0+11047	2 3 45 5	2 2 9	2 2 -24 6	1 9 9	2 1 45 5
				-24 3	-24 4		-24 7	-24 5
+50	2 3	26 566		2 3 45 5	2 5 9	2 3 -24 3	2 1 9	2 1 45 5
				-24 3	-24 1		-24 5	-24 5
486	2 2	26 572		2 1 45 8	2 3 9	2 2 -24 4	1 9 9	2 2 45 6
				-24 5	-24 3		-24 7	-24 1

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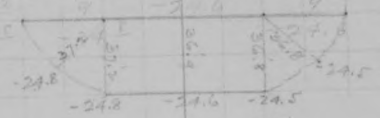
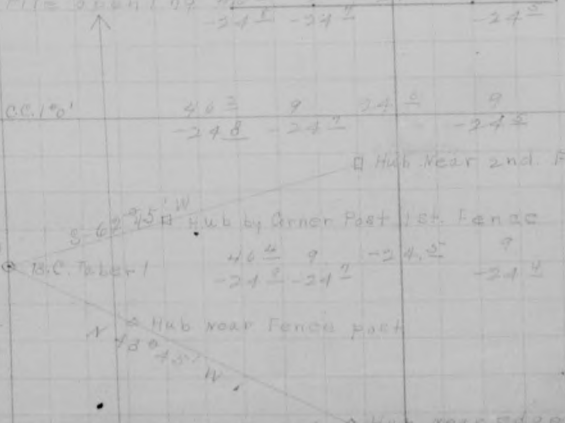
79.

1262

Sta.	Elev.	Grade		Lt.		C.L.		Rt.
+50	21	26.57	Curve 3°0' Lt.	45.9 / -24.8	22.8 / -24.8	21 / -24.5	19 / -24.9	21 / 45.8 / -24.5
485	20	26.58.3		46.1 / -24.7	19 / 24.4	20 / -24.6	18 / -24.8	20 / 45.9 / -24.6
+84.5	20	26.58.6	cc. 3°0' Lt.	46.1 / -24.7	19 / -24.6	20 / -24.6	19 / -24.7	20 / 45.9 / -24.6
+54.5	20	26.58.9	cc. 2°30'	46.2 / -24.8	18 / -24.8	20 / -24.6	18 / -24.8	21 / 45.8 / -24.5
484+24.5	22	26.59.2	cc. 2°0'	46.2 / -24.8	18 / -24.5	22 / -24.4	18 / -24.8	22 / 46.6 / -24.4
+94.5	20	26.59.6	cc. 1°30'	46.2 / -24.5	18 / 9	22 / -24.4	22 / 9	22 / 45.6 / -24.4
+94. E.B.								
+74.0			Bent No. 12 of 13 Bent Pile = 2 pen 1.09	46.4 / -24.1	9 / -24.2	-24.6	9 / -24.5	45.5 / -24.3
+64.5	22	26.59.9	cc. 1°0'	46.3 / -24.8	9 / -24.2	24.6	9 / -24.2	45.5 / -24.2
483+34.5	21	26.59.3		46.4 / -24.2	9 / -24.2	-24.5	9 / -24.4	45.5 / -24.3
T.C. 13°11'								
S.T. = 295.77								

Bent No. 12 of 13 Bent Pile = 2 pen 1.09 Nail in Post of Cotton Wood Tree 300' Rt. 483+95 Elev. 8.681





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1263

Sta.	Elev.	Grade		Lt.		Ct.		Rt.
483	3.0	26.487		2.0 46.9 -24.0	9 -24.8	-24.6	9 -24.8	45.8 -24.3
+50	2.5	26.613		45.6 -24.7	9 -24.8	-24.1	9 -23.9	44.9 -23.9
482	3.8	26.679	Bent No 7 of 13 Bent Pile opening.	44.5 -23.9 2.8	24.2 -23.3 3.8	-23.6 3.8	35.7 -23.2 3.4	43.2 -22.8 3.8
+50	4.2	26.725	Original	4.1 42.8 -22.5	4.1 9 -22.5	4.2 -22.4	4.5 9 -22.1	4.3 42.3 -22.2
481	4.9	26.831		4.6 42.8 -22.9	4.8 9 -21.8	4.9 -21.7	4.9 9 -21.7	5.8 41.1 -21.4

Sections, Sta. 360 to 504.

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Brush on Small Cottonwood Tree.

480+50	5.7	26.827	E.C.	5.1 41.3 -21.5	5.5 9 -21.8	5.7 -20.9	5.8 9 -20.8	6.0 39.8 -20.6

Hub near edge of willows.

Hub near bank of ditch near edge of R.W.

480+20	6.1	26.640	C.S. 1°0'	40.5 -21.0	9 -20.8	-20.5	9 -20.5	38.6 -19.7
+90	6.2	26.644	C.S. 1°30'	40.1 -20.7	9 -20.7	-20.4	9 -20.1	38.6 -19.3
479+60	6.3	26.644	C.S. 2°0'	5.9 40.1 -20.7	6.1 9 -20.5	6.3 -20.3	6.6 9 -20.2	7.1 38.3 -19.5

12641

Sta.	Elev.	Grade		Lt.		Cr.	Rt.	
+30	6.5	36.651	C.C. 2°20'	40.7	9	-20.2	9	38.3
				-21.1	-20.5		-19.7	-19.5
479	6.5	36.655	C.C. T.I.	5.3 41.1	6.1 9	6.5 -20.2	7.0 9	7.2 38.3
				-21.4	-20.6		-19.7	-19.5
+50	6.8	36.661		6.3 39.6	6.7 9	6.8 -19.9	6.7 9	7.1 38.0
				-20.4	-20.2		-20.0	-19.3
478	7.2	36.667		6.9 38.7	7.3 9	7.3 -19.5	7.5 9	8.1 36.9
				-19.8	-19.4		-19.2	-18.6
+50	7.3	36.673		6.6 39.2	7.3 9	7.3 -19.4	7.5 9	6.8 37.4
				-20.1	-19.9		-19.3	-19.9
477	7.2	36.679		6.7 39.2	7.0 9	7.2 -19.5	7.5 9	7.9 37.7
				-20.2	-19.7		-19.2	-18.8
+50	7.4	36.684	C.C. 3°24'	6.9 38.7	7.7 9	7.4 -19.3	7.7 9	8.1 36.9
				-19.8	-19.2		-19.2	-18.6
476+20	7.4	36.689		39.6	9	-19.3	9	38.6
				-20.2	-19.6		-19.2	-19.7
			B.M. No 28 Spikein tree opp Sta. E 475+00 Elev. 9.927 (9.774)					
+90	6.3	36.691		39.6	9	-20.4	9	37.9
				-20.4	-19.6		-19.2	-19.1
+60	6.3	36.695		6.1 39.9	5.9 9	6.3 -20.4	6.6 9	6.6 39.2
				-20.6	-20.5		-20.1	-20.1
475+30	6.4	36.698		39.8	9	-20.3	9	39.3
				-20.2	-20.7		-20.5	-20.2

Sta.	Elev.	Grade		Lt.		Ct.		Rt.
								Board on Cotton Wood Tree.
							20	
					10' ⊥ Hub			
				S 80° W.	Hub by R.W.			
475	5.9	36 713		5.9	6.0	5.8	6.1	6.4
				40.2	9	-20.8	9	39.5
				B.C.T.T.				
				-20.8	-20.7		-20.6	-20.3
				Hub by R.W.				
				N. 49° W.				
							Hub near 8 inch Bois d'Arc Post in Fence	
+50	5.8	36 708	0	40.4	9	-20.9	9	39.8
			0.119047	-20.9	-20.9		-20.8	-20.5
				5.7	5.7	6.1	6.1	6.0
474	6.1	36 714	0	40.5	9	-20.6	9	40.1
				-21.0	-21.0		-20.6	-20.7
+50	5.7	36 720		41.4	9	-21.0	9	40.4
				-21.4	-21.0		-21.0	-20.9
				5.4	5.2	5.4	5.4	5.7
473	5.4	36 726		41.0	9	-21.3	9	40.6
				-21.3	-21.0		-21.3	-21.0
+50	5.3	36 732		40.8	9	-21.4	9	40.7
				-21.2	-21.3		-21.3	-21.1
				5.4	5.5	5.4		5.4
472	5.4	36 738		41.0	9	-21.3	9	41.0
				-21.3	-21.2		-21.3	-21.3
+50	5.5	36 744	0.119047	41.1	9	-21.2	9	40.7
				-21.3	-21.2		-21.2	-21.1
			0	5.7		5.2	5.8	5.8
471	5.2	36 750		40.7	9	-21.1	9	40.7
				-21.1	-21.1		-21.0	-21.1
470+50	5.7	36 756		40.8	9	-21.1	9	40.7
				-21.2	-21.1		-21.2	-21.1

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"E"	Elev.	Grade		Lt.		Cn.		Rt.	
				5.7	5.9	5.8	5.9	5.8	
470	5.8	26 7+22		40.9	9	-20.0	9	40.5	
				-21.1	-20.2		-20.2	-21.0	
+50	5.9	26 768		40.4	9	-20.9	9	40.1	
				-20.9	-20.7		-20.5	-20.7	
				6.5	6.1	6.3	6.4	6.6	
469	6.3	26 794		39.5	9	-20.5	9	39.3	
				-20.3	-20.7		-20.4	-20.2	
				6.8	7.0	6.9	6.8	7.8	
+50	6.9	26 780		39.0	9	-19.9	9	38.4	
				-20.2	-19.8		-19.0	-19.6	
				7.8	7.6	7.4	7.8	7.8	
468	7.4	26 786		38.4	9	-19.4	9	37.5	
				-19.6	-19.2		-19.0	-19.0	

				7.5	7.9	7.6	8.2	8.4	
+50	7.6	26 792		36.9	9	-17.2	9	36.6	467+90 Grade
				-18.8	-18.9		-18.5	-18.4	
				8.0	8.5	8.5	8.4	8.5	
467	8.5	26 798		37.2	9	-18.3	9	36.5	
				-18.8	-18.3		-18.4	-18.3	
+50	9.1	26 804		36.5	9	-17.7	9	13	34.8
				-18.3	-17.7		-17.7	-17.5	-17.2
466	9.5	26 810		35.7	9	-17.8	9	35.0	466. E.B.
				-17.8	-17.3		-17.0	-17.3	
+50	10.9	26 816							
465+26	10.5	26 822		32.1	9	-15.7	9	31.8	465+26 E.B.
				-15.4	-15.9		-16.0	-15.2	

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Station	Elev.	Grade	Lt.		Cv.		Rt.
465	10.5	36.822	32.1 -15.4	9 -15.9	-16.3	9 -16.0	32.6 -15.7
+50	11.1	36.829	33.0 -16.0	9 -15.7	-15.7	9 -15.5	32.7 -15.8
464	11.1	36.833	32.4 -15.6	9 -16.6	-15.7	9 -15.7	32.3 -15.5
+50	11.1	36.839	32.6 -15.7	9 -15.6	-15.7	9 -15.4	32 -15.3
463	11.6	36.845	31.7 -14.8	9 -14.3	-15.2	9 -15.0	31.5 -15.0
462+81 E.B.			-14.9 31.4	-14.8 9	-14.8	-14.9 9	-15.1 31.6
+50	11.4	36.851	-14.9	-14.7	-14.9	-14.9	-14.7
462+07 E.B.	11.9	36.857	-14.8 -14.9 31.4	-14.7 -14.4 9	-14.7 -14.6	-14.4 -13.3 9	-13.5 -14.4 30.6
462			31.5 -15.0	9 -14.6	-15.0	9 -14.8	32.3 -14.2
450	12.6	36.863	31.7 -15.1	9 -14.2	-14.8	9 -15.0	31.5 -15.0
461	12.0	36.869	31.8 -15.2	9 -15.8	-14.9	9 -15.2	31.1 -14.7
+50	12.2	36.875	31.5 -15.0	9 -15.1	-14.9	9 -15.0	32.2 -15.5
460	12.9	36.881	30.3 -14.2	9 -14.1	-14.0	9 -14.0	32.0 -14.0
+50	13.8	36.887	28.8 -13.2	9 -13.1	-13.1	9 -12.9	28.4 -12.9
459	14.2	36.893	28.4 -12.9	9 -12.9	-12.9	9 -12.9	27.8 -12.5

Copied into Book of "Original Cross Sections, Sta. 360 to 504", on pages 55-67
E.B.L.

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Copied into Book of "Original Cross Sections, Sta. 360 to 504.

Table IV.—Minutes in Decimals of a Degree.

1′	.0167	11′	.1833	21′	.3500	31′	.5167	41′	.6833	51′	.8500
2	.0333	12	.2000	22	.3667	32	.5333	42	.7000	52	.8667
3	.0500	13	.2167	23	.3833	33	.5500	43	.7167	53	.8833
4	.0667	14	.2333	24	.4000	34	.5667	44	.7333	54	.9000
5	.0833	15	.2500	25	.4167	35	.5833	45	.7500	55	.9167
6	.1000	16	.2667	26	.4333	36	.6000	46	.7667	56	.9333
7	.1167	17	.2833	27	.4500	37	.6167	47	.7833	57	.9500
8	.1333	18	.3000	28	.4667	38	.6333	48	.8000	58	.9667
9	.1500	19	.3167	29	.4833	39	.6500	49	.8167	59	.9833
10	.1667	20	.3333	30	.5000	40	.6667	50	.8333	60	1.0000

Table V.—Inches in Decimals of a Foot.

1-16 .0052	3-32 .0078	⅛ .0104	3-16 .0156	¼ .0208	5-16 .0260	⅜ .0313	½ .0417	⅝ .0521	¾ .0625	⅞ .0729	
1 .083	2 .1667	3 .2500	4 .3333	5 .4167	6 .5000	7 .5833	8 .6667	9 .7500	10 .8333	11 .9167	

Table VI.—Radii, Ordinates and Deflections.

Deg.	Radius	Mid Ord	Tan Def.	Chd. Def	Def for 1 Foot	Deg.	Radius	Mid. Ord.	Tan Def.	Chd Def.	Def. for 1 Foot
0° 10′	24377.	.036	.145	.291	0.05′	7°	819.0	1.528	6.105	12.21	2.10′
20	17189.	.073	.291	.582	0.10	20′	781.8	1.600	6.395	12.79	2.20
30	11459.	.109	.436	.873	0.15	30	764.5	1.637	6.540	13.08	2.25
40	8594.4	.145	.582	1.164	0.20	40	747.9	1.673	6.685	13.37	2.30
50	6875.5	.182	.727	1.454	0.25	8	716.8	1.746	6.976	13.95	2.40
1° 0	5729.6	.218	.873	1.745	0.30	20	688.2	1.819	7.266	14.53	2.50
10	4911.2	.255	1.018	2.036	0.35	30	674.7	1.855	7.411	14.82	2.55
20	4297.3	.291	1.164	2.327	0.40	40	661.7	1.892	7.556	15.11	2.60
30	3819.8	.327	1.309	2.618	0.45	9	637.3	1.965	7.846	15.69	2.70
40	3437.9	.364	1.454	2.909	0.50	20	614.6	2.037	8.136	16.27	2.80
50	3125.4	.400	1.600	3.200	0.55	30	603.8	2.074	8.281	16.56	2.85
2° 0	2864.9	.436	1.745	3.490	0.60	40	593.4	2.110	8.426	16.85	2.90
10	2644.6	.473	1.891	3.781	0.65	10	573.7	2.183	8.716	17.43	3.00
20	2455.7	.509	2.036	4.072	0.70	30	546.4	2.292	9.150	18.30	3.15
30	2292.0	.545	2.181	4.363	0.75	11	521.7	2.402	9.585	19.16	3.30
40	2148.8	.582	2.327	4.654	0.80	30	499.1	2.511	10.02	20.04	3.45
50	2022.4	.618	2.472	4.945	0.85	12	478.3	2.620	10.45	20.91	3.60
3° 0	1910.1	.655	2.618	5.235	0.90	30	459.3	2.730	10.89	21.77	3.75
10	1809.6	.691	2.763	5.526	0.95	13	441.7	2.839	11.32	22.64	3.90
20	1719.1	.727	2.908	5.817	1.00	30	425.4	2.949	11.75	23.51	4.05
30	1637.3	.764	3.054	6.108	1.05	14	410.3	3.058	12.18	24.37	4.20
40	1562.9	.800	3.199	6.398	1.10	30	396.2	3.168	12.62	25.24	4.35
50	1495.0	.836	3.345	6.689	1.15	15	383.1	3.277	13.05	26.11	4.50
4° 0	1432.7	.873	3.490	6.980	1.20	30	370.8	3.387	13.49	26.97	4.65
10	1375.4	.909	3.635	7.271	1.25	16	359.3	3.496	13.92	27.84	4.80
20	1322.5	.945	3.718	7.561	1.30	30	348.5	3.606	14.35	28.70	4.95
30	1273.6	.982	3.926	7.852	1.35	17	338.3	3.716	14.78	29.56	5.10
40	1228.1	1.018	4.071	8.143	1.40	18	319.6	3.935	15.64	31.29	5.40
50	1185.8	1.055	4.217	8.433	1.45	19	302.9	4.155	16.51	33.01	5.70
5° 0	1146.3	1.091	4.362	8.724	1.50	20	287.9	4.374	17.37	34.73	6.00
10	1109.3	1.127	4.507	9.014	1.55	21	274.4	4.594	18.22	36.44	6.30
20	1074.7	1.164	4.653	9.305	1.60	22	262.0	4.814	19.08	38.16	6.60
30	1042.1	1.200	4.798	9.596	1.65	23	250.8	5.035	19.94	39.87	6.90
40	1011.5	1.237	4.943	9.886	1.70	24	240.5	5.255	20.79	41.58	7.20
50	982.6	1.273	5.088	10.18	1.75	25	231.0	5.476	21.64	43.28	7.50
6° 0	955.4	1.309	5.234	10.47	1.80	26	222.3	5.697	22.50	44.99	7.80
10	928.6	1.346	5.379	10.76	1.85	27	214.2	5.918	23.35	46.69	8.10
20	905.1	1.382	5.524	11.05	1.90	28	206.7	6.139	24.19	48.38	8.40
30	881.9	1.418	5.669	11.34	1.95	29	199.7	6.360	25.04	50.07	8.70
40	859.9	1.455	5.814	11.63	2.00	30	193.2	6.583	25.88	51.76	9.00

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